

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) Terrain anticollision equipment to be carried onboard an aircraft, comprising:

means for determining a virtual envelope of protection of maneuver constructed around the short term predicted trajectory of the aircraft and delimiting a protection volume around the current position and the current trajectory of the aircraft,

means for detecting intrusions, into said virtual envelope ~~or envelopes of~~ protection of maneuver, of a representation of an envelope of the terrain and/or of the ground obstacles overflown stored in a data base ~~onboard or on the ground~~,

alarm means for alerting of a risk of terrain collision, triggered by the intrusion detection means each time said detection means detect a terrain and/or ground obstacle intrusion in the virtual envelope of protection maneuver ;

wherein after detection of a risk of ground collision, the means for ~~[[of]]~~ determining virtual envelopes envelope of protection determine, in addition to the virtual envelope ~~or envelopes of~~ protection of maneuver, a virtual envelope of protection of resumption of route constructed around a fictitious trajectory of resumption of route,

wherein the means for ~~[[of]]~~ intrusion detection detect the intrusions of the terrain and/or of the ground obstacles at one and the same time into the virtual envelope ~~or envelopes of~~ protection of maneuver and into the virtual envelope ~~or envelopes of~~ protection of resumption of route; and

wherein the alarm means produce an indication signaling the possibility of ending an avoidance maneuver as soon as the means for ~~[[of]]~~ intrusion detection no longer note any intrusion of the terrain and/or of the ground obstacles into the virtual envelope ~~or envelopes of~~ protection of resumption of route.

2. (Previously Presented) The equipment as claimed in claim 1, wherein the fictitious trajectory of resumption of route is a horizontal trajectory.

3. (Currently Amended) The equipment as claimed in claim 1, wherein the fictitious trajectory of resumption of route is a trajectory having as slope a horizontal slope when ~~[[if]]~~ the instantaneous trajectory of the aircraft is climbing or holding level, and a slope dependent on the instantaneous trajectory of the aircraft when ~~[[if]]~~ the aircraft is descending.

4. (Previously Presented) The equipment as claimed in claim 1, wherein the fictitious trajectory of resumption of route is a trajectory having as slope a slope dependent on the instantaneous trajectory of the aircraft.

5. (Currently Amended) The equipment as claimed in claim 4 ~~[[1]]~~, wherein the fictitious trajectory of resumption of route is a trajectory having as slope a slope dependent on the trajectory of the aircraft at the moment of the detection of the risk of terrain collision.

6. (Currently Amended) The equipment as claimed in claim 1, wherein the fictitious trajectory of resumption of route is a trajectory having as slope a slope dependent on the trajectory of the aircraft at the moment of the detection of the risk of terrain collision, when ~~[[if]]~~ the aircraft ~~latter~~ was descending, and a horizontal trajectory ~~whenif~~ the aircraft ~~latter~~ was flying horizontally or climbing at the moment of the detection of the risk of terrain collision.

7. (Previously Presented) The equipment as claimed in claim 1, wherein the fictitious trajectory of resumption of route is a trajectory having as heading the instantaneous heading of the aircraft.

8. (Previously Presented) The equipment as claimed in claim 1, wherein the fictitious trajectory of resumption of route is a trajectory having as heading and slope those of the trajectory of the aircraft at the moment of the detection of the risk of terrain collision.

9. (Currently Amended) The equipment as claimed in claim 1, wherein the limits of the ~~virtual envelope or envelopes~~ of protection are defined by a so-called feeler surface, the meeting of which with the representation of an envelope of the terrain

and/or of the ground obstacles which is extracted from the information of the data base is regarded as an intrusion of the terrain and/or of the ground obstacles into the corresponding virtual envelope of protection.

10. (Previously Presented) The equipment as claimed in claim 9, wherein, regardless of the instantaneous attitude of the aircraft, the projection onto the horizontal of a feeler of virtual envelope of protection of maneuver is adopted as feeler of a virtual envelope of protection of resumption of route.

11. (Currently Amended) The equipment as claimed in claim 9, wherein, when the instantaneous attitude of the aircraft is climbing at [[or]] flying level, the projection onto the horizontal of a feeler of virtual envelope of protection of maneuver is adopted as feeler of a virtual envelope of protection of resumption of route.

12. (Previously Presented) The equipment as claimed in claim 9, wherein, when the instantaneous attitude of the aircraft is descending, the projection according to an inclined plane dependent on the instantaneous descent slope of the aircraft of a feeler of virtual envelope of protection of maneuver is adopted as feeler of a virtual envelope of protection of resumption of route.

13. (Previously Presented): The equipment as claimed in claim 1, wherein, when the instantaneous attitude of the aircraft is descending, the projection along an inclined plane dependent on the instantaneous descent slope of the aircraft of a feeler of virtual envelope of protection of maneuver during a certain distance or flight time and then according to the horizontal is adopted as feeler of a virtual envelope of protection of resumption of route.

14. (Previously Presented): The equipment as claimed in claim 13, wherein, when the terrain anticollision equipment is provided with a display screen showing a representation of the terrain layers and/or of risk with the terrain and/or the obstacles overflown, the projection, in two planes, which is adopted as feeler of a virtual envelope of protection of resumption of route is carried out in a manner consistent with that used on the screen for the representation of the terrain layers and/or of risk with the terrain and/or the obstacles overflown.

15. (Currently Amended) The equipment as claimed in claim 1, wherein, when the aircraft was climbing or holding level at the moment of the detection of ~~[[a]]~~ the risk of terrain collision, the projection onto the horizontal of a feeler of virtual envelope of protection of maneuver is adopted as feeler of a virtual envelope of protection of resumption of route.

16. (Previously Presented) The equipment as claimed in claim 1, wherein, when the aircraft was descending at the moment of the detection of a risk of terrain collision, the projection, along an inclined plane having the descent slope of the aircraft at the moment of the detection of the risk of terrain collision, of a feeler of virtual envelope of protection of maneuver is adopted as feeler of a virtual envelope of protection of resumption of route.

17. (Currently Amended) The equipment as claimed in claim 1, wherein, when the means for ~~[[of]]~~ determination of virtual envelope of protection produce two virtual envelopes of protection of maneuver, the more distant for a prealarm of terrain collision and the closer for an alarm of terrain collision and when the aircraft is climbing or holding level, the union of the projections onto the horizontal of the feelers of the two virtual envelopes of protection of maneuver is adopted as feeler of a virtual envelope of protection of resumption of route.

18. (Currently Amended) The equipment as claimed in claim 1, wherein, when the means for ~~[[of]]~~ determination of virtual envelope of projection produce two virtual envelopes of protection of maneuver, the more distant for a prealarm of terrain collision and the closer for an alarm of terrain collision and when the aircraft was descending at the moment of the detection of a risk of terrain collision, the union of the projections, along an inclined plane having the descent slope of the aircraft at the moment of the detection of the risk of terrain collision, of the feelers of the two virtual envelopes of protection of maneuver is adopted as feeler of a virtual envelope of protection of resumption of route.

19. (Previously Presented) The equipment as claimed in claim 1, wherein, the indication signaling the possibility of ending an avoidance maneuver is given

momentarily in aural and/or visual form.

20. (Previously Presented) The equipment as claimed in claim 1, wherein it produces an indication of holding of the avoidance maneuver in aural and/or visual form, upon the disappearance of a terrain alert and does so, until no risk of collision is detected by the virtual envelope of protection of resumption of route.

21. (Currently Amended) The equipment as claimed in claim 1, wherein the vertical distance under the aircraft at which a virtual envelope of protection of resumption of route ~~is placed~~ is taken equal to that used for one of the virtual envelopes of protection of maneuver.

22. (Previously Presented) The equipment as claimed in claim 21, wherein, when the terrain anticollision equipment is provided with a display screen showing a representation of the terrain layers and/or of risk with the terrain and/or the obstacles overflown, the vertical distance under the aircraft at which a virtual envelope of protection of resumption of route is placed is taken consistent with that used on the screen for the representation of the terrain layers and/or of risk with the terrain and/or the obstacles overflown.